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RAW SEQUENCE LISTING
PATENT APPLICATION US/09/083,793DATE: 05/29/98
TIME: 14:35:47

INPUT SET: S26299.raw

This Raw Listing contains the General
Information Section and up to the first 5 pages.

1 SEQUENCE LISTING
2
3 (1) General Information:
4
5 (i) APPLICANT: Murphy, Brian R.
6 Collins, Peter L.
7 Durbin, Anna P.
8 Skiadopoulos, Mario H.
9 Tao, Tao
10
11 (ii) TITLE OF INVENTION: PRODUCTION OF ATTENUATED PARAINFLUENZA
12 VIRUS VACCINES FROM CLONED NUCLEOTIDE SEQUENCE
13
14 (iii) NUMBER OF SEQUENCES: 74
15
16 (iv) CORRESPONDENCE ADDRESS:
17 (A) ADDRESSEE: TOWNSEND and TOWNSEND and CREW LLP
18 (B) STREET: Two Embarcadero Center, 8th Floor
19 (C) CITY: San Francisco
20 (D) STATE: California
21 (E) COUNTRY: USA
22 (F) ZIP: 94111
23
24 (v) COMPUTER READABLE FORM:
25 (A) MEDIUM TYPE: Floppy disk
26 (B) COMPUTER: IBM PC compatible
27 (C) OPERATING SYSTEM: PC-DOS/MS-DOS
28 (D) SOFTWARE: PatentIn Release #1.0, Version #1.25
29
30 (vi) CURRENT APPLICATION DATA:
31 (A) APPLICATION NUMBER: 09/
32 (B) FILING DATE: 22-MAY-1998
33 (C) CLASSIFICATION:
34
35 (vii) PRIOR APPLICATION DATA:
36 (A) APPLICATION NUMBER: US 60/059,385
37 (B) FILING DATE: 19-SEP-1997
38
39 (viii) PRIOR APPLICATION DATA:
40 (A) APPLICATION NUMBER: US 60/047,575
41 (B) FILING DATE: 23-MAY-1997
42
43 (ix) ATTORNEY/AGENT INFORMATION:
44 (A) NAME: King, Jeffrey J.
45 (B) REGISTRATION NUMBER: 38,515
46 (C) REFERENCE/DOCKET NUMBER: 17634-000320

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48 (ix) TELECOMMUNICATION INFORMATION:
49 (A) TELEPHONE: 206-467-9600
50 (B) TELEFAX: 415-576-0300

51
52 (2) INFORMATION FOR SEQ ID NO:1:

53 (i) SEQUENCE CHARACTERISTICS:
54 (A) LENGTH: 15669 base pairs
55 (B) TYPE: nucleic acid
56 (C) STRANDEDNESS: single
57 (D) TOPOLOGY: linear

58
59 (ii) MOLECULE TYPE: cDNA

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61 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

62	GCTGGGTACC GGGCCCGTCG ACGCGTATAT AGTTCCCTCCT TTCAGCAAAA AACCCCTCAA	60
63	GACCCGTTA GAGGCCCAA GGGGTTATGC TACTGCAGGC TCTCCCTTAG CCATCCGAGT	120
64	GGACCGTGCCT CCTCCTTCGG ATGCCAGGT CGGACCGCGA GGAGGTGGAG ATGCCATGCC	180
65	GACCCACCAA ACAAGAGAAG AAACTTGTCT GGAAATATAA ATTTAACTTT AAATTAACCTT	240
66	AGGATTAAG ACATTGACTA GAAGGTCAAG AAAAGGAAC TCTATAATT CAAAAATGTT	300
67	GAGCCTATTT GATACATTAA ATGCACGTAG GCAAGAAAAC ATAACAAAAT CAGCCGGTGG	360
68	AGCTATCATT CCTGGACAGA AAAATACTGT CTCTATATTG GCCCTTGGAC CGACAATAAC	420
69	TGATGATAAT GAGAAAATGA CATTAGCTCT TCTATTTCTA TCTCATTAC TAGATAATGA	480
70	GAAACAACAT GCACAAAGGG CAGGGTTCTT GGTGTCTTTA TTGTCAATGG CTTATGCCAA	540
71	TCCAGAGCTC TACCTAACAA CAAATGGAAG TAATGCAGAT GTCAAGTATG TCATATACAT	600
72	GATTGAGAAA GATCTAAAAC GGCAAAAGTA TGGAGGATT GTGGTTAAGA CGAGAGAGAT	660
73	GATATATGAA AAGACAAC TGATTGGATATT TGGAAGTGAC CTGGATTATG ATCAGGAAAC	720
74	TATGTTGCAG AACGGCAGGA ACAATTCAAC AATTGAAGAC CTTGTCCACA CATTGGGTA	780
75	TCCATCATGT TTAGGAGCTC TTATAATACA GATCTGGATA GTTCTGGTCA AAGCTATCAC	840
76	TAGTATCTCA GGGTTAAGAA AAGGCTTTT CACCCGATTG GAAGCTTCA GACAAGATGG	900
77	AACAGTGCAG GCAGGGCTGG TATTGAGCGG TGACACAGTG GATCAGATTG GGTCAATCAT	960
78	GCGGTCTCAA CAGAGCTTGG TAACTCTTAT GGTTGAAACA TTAATAACAA TGAATACAG	1020

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100	CAGAAATGAC CTCACAACCA TAGAAAAGAA TATACAAATT GTTGGCAACT ACATAAGAGA	1080
101	TGCAGGTCTC GCTTCATTCT TCAATACAAT CAGATATGGA ATTGAGACCA GAATGGCAGC	1140
102	TTTGACTCTA TCCACTCTCA GACCAGATAT CAATAGATTA AAAGCTTGA TGGAACGTGA	1200
103	TTTATCAAAG GGACCACGCG CTCCTTCAT CTGTATCCTC AGAGATCCTA TACATGGTGA	1260
104	GTTCGCACCA GGCAACTATC CTGCCATATG GAGCTATGCA ATGGGGTGG CAGTTGTACA	1320
105	AAATAGAGCC ATGCAACAGT ATGTGACGGG AAGATCATAT CTAGACATTG ATATGTTCCA	1380
106	GCTAGGACAA GCAGTAGCAC GTGATGCCGA AGCTCAAATG AGCTAACAC TGGAAGATGA	1440
107	ACTTGGAGTG ACACACGAAT CTAAGAAAAG CTTGAAGAGA CATATAAGGA ACATAAACAG	1500
108	TTCAGAGACA TCTTCCACA AACCGACAGG TGGATCAGCC ATAGAGATGG CAATAGATGA	1560
109	AGAGCCAGAA CAATTCGAAC ATAGAGCAGA TCAAGAACAA AATGGAGAAC CTCAATCATC	1620
110	CATAATTCAA TATGCCTGGG CAGAAGGAAA TAGAAGCGAT GATCAGACTG AGCAAGCTAC	1680
111	AGAATCTGAC AATATCAAGA CCGAACAAACA AAACATCAGA GACAGACTAA ACAAGAGACT	1740
112	CAACCGACAAG AAGAAACAAA GCAGTCAACCC ACCCACTAAT CCCACAAACAA GAACAAACCA	1800
113	GGACGAAATA GATGATCTGT TTAACGCATT TGGAAGCAAC TAATCGAATC AACATTTAA	1860
114	TCTAAATCAA TAATAAATAA GAAAAACTTA GGATTAAGAG ATCCTATCAT ACCGGAATAT	1920
115	AGGGTGGTAA ATTTAGAGTC TGCTTGAAAC TCAATCAATA GAGAGTTGAT GGAAAGCGAT	1980
116	GCTAAAAACT ATCAAATCAT GGATTCTTGG GAAGAGGAAT CAAGAGATAA ATCAACTAAT	2040
117	ATCTCCTCGG CCCTCAACAT CATTGAATTCA ATACTCAGCA CCGACCCCCA AGAAGACTTA	2100
118	TCGGAAAACG ACACAATCAA CACAAGAACCC CAGCAACTCA GTGCCACCAT CTGTCAACCA	2160
119	GAAATCAAAC CAACAGAAAC AAGTGAGAAA GATAGTGGAT CAACTGACAA AAATAGACAG	2220
120	TCTGGGTCAAT CACACGAATG TACAACAGAA GCAAAAGATA GAAATATTGA TCAGGAAACT	2280
121	GTACAGAGAG GACCTGGGAG AAGAAGCAGC TCAGATAGTA GAGCTGAGAC TGTGGTCTCT	2340
122	GGAGGAATCC CCAGAACCAT CACAGATTCT AAAATGGAA CCCAAAACAC GGAGGATATT	2400
123	GATCTCAATG AAATTAGAAA GATGGATAAG GACTCTATTG AGGGAAAAT GCGACAATCT	2460
124	GCAAATGTTCAAGCGAGAT ATCAGGAAGT GATGACATAT TTACAACAGA ACAAAAGTAGA	2520
125	AACAGTGATC ATGGAAGAAG CCTGGAATCT ATCAGTACAC CTGATACAAG ATCAATAAGT	2580
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PATENT APPLICATION US/09/083,793DATE: 05/29/98
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153	GTTGTTACTG CTGCAACACC AGATGATGAA GAAGAAATAC TAATGAAAAA TAGTAGGACA	2640
154	AAGAAAAGTT CTTCAACACA TCAAGAAGAT GACAAAGAA TTAAAAAAGG GGGAAAAGGG	2700
155	AAAGACTGGT TTAAGAAATC AAAAGATACC GACAACCAGA TACCAACATC AGACTACAGA	2760
156	TCCACATCAA AAGGGCAGAA GAAAATCTCA AAGACAACAA CCACCAACAC CGACACAAAG	2820
157	GGGCAAACAG AAATACAGAC AGAATCATCA GAAACACAAT CCTCATCATG GAATCTCATC	2880
158	ATCGACAACA ACACCGACCG GAACGAACAG ACAAGCACAA CTCCCTCCAAC AACAACTTCC	2940
159	AGATCAACTT ATACAAAAGA ATCGATCCGA ACAAAACTCTG AATCCAAACC CAAGACACAA	3000
160	AAGACAAATG GAAAGGAAAG GAAGGATACA GAAGAGAGCA ATCGATTTAC AGAGAGGGCA	3060
161	ATTACTCTAT TGCAGAATCT TGGTGTATT CAATCCACAT CAAAACCTAGA TTTATATCAA	3120
162	GACAAACGAG TTGTATGTGT AGCAAATGTA CTAAACAATG TAGATACTGC ATCAAAGATA	3180
163	GATTCCTGG CAGGATTAGT CATAGGGTT TCAATGGACA ACGACACAAA ATTAACACAG	3240
164	ATACAAAATG AAATGCTAAA CCTCAAAGCA GATCTAAAGA AAATGGACGA ATCACATAGA	3300
165	AGATTGATAG AAAATCAAAG AGAACAACTG TCATTGATCA CGTCACTAAT TTCAAATCTC	3360
166	AAAATTATGA CTGAGAGAGG AGGAAAGAAA GACCAAAATG AATCCAATGA GAGAGTATCC	3420
167	ATGATCAAAA CAAAATTGAA AGAAGAAAAG ATCAAGAAGA CCAGGTTGA CCCACTTATG	3480
168	GAGGCACAAG GCATTGACAA GAATATACCC GATCTATATC GACATGCAGG AGATACACTA	3540
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170	AGACTAATAC CCAAAAAGT GAGCAGTACA ATGAGATCAC TAGTTGCAGT CATCAACAAC	3660
171	AGCAATCTCT CACAAAGCAC AAAACAATCA TACATAAACG AACTCAAACG TTGCAAAAT	3720
172	GATGAAGAAG TATCTGAATT AATGGACATG TTCAATGAAG ATGTCACAA TTGCCAATGA	3780
173	TCCAACAAAG AAACGACACC GAACAAACAG ACAAGAAACA ACAGTAGATC AAAACCTGTC	3840
174	AACACACACA AAATCAAGCA GAATGAAACA ACAGATATCA ATCAATATAC AAATAAGAAA	3900
175	AACTTAGGAT TAAAGAATAA ATTAATCCTT GTCCAAAATG AGTATAACTA ACTCTGCAAT	3960
176	ATACACATTC CCAGAATCAT CATTCTCTGA AAATGGTCAT ATAGAACCAT TACCACTCAA	4020
177	AGTCAATGAA CAGAGGAAAG CAGTACCCCA CATTAGAGTT GCCAAGATCG GAAATCCACC	4080
178	AAAACACGGA TCCCGGTATT TAGATGTCTT CTTACTCGGC TTCTTCGAGA TGGAACGAAT	4140
179	CAAAGACAAA TACGGGAGTG TGAATGATCT CGACAGTGAC CCGAGTTACA AAGTTGTGG	4200

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206 CTCTGGATCA TTACCAATCG GATTGGCTAA GTACACTGGG AATGACCAGG AATTGTTACA 4260
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211 212 AATGCTGTTTC GATGCCAACAA AAGTTGCTCT TGCTCCTCAA TGTCTTCCAC TAGATAGGAG 4440
213 214 CATAAAATTT AGAGTAATCT TCGTGAATTG TACGGCAATT GGATCAATAA CCTTGGTCAA 4500
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217 218 ACACATAAAA ACAGGGGTTTC AGACTGATTC TAAAGGGATA GTTCAAATTT TGGATGAGAA 4620
219 220 AGGCGAAAAAA TCACTGAATT TCATGGTCCA TCTCGGATTG ATCAAAAGAA AAGTAGGCAG 4680
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223 224 AGGACTAGTT GGAGGAATCA GTCTTCATGT CAATGCAACT GGGTCCATAT CAAAAACACT 4800
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227 228 TCTCAATCTA GTTATCTGGG CTTCATCAGT AGAGATTACA AGAGTGGATG CAATTTCCA 4920
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237 238 AAGGTACAGA ACACCAGAAC AACAAAATCA AAACATCCAA CTCACTCAA AAAAAATTCA 5220
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247 248 AAGCAATACA AGAAGTTATT GGATAGACTG ATCATCCCTT TATATGATGG ATTAAGATTA 5520
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251 252 CGATTCTTG GAGGGGTAAT TGGAACCATT GCTCTGGGAG TAGCAACCTC AGCACAAATT 5640
253 254 ACAGCGGCAG TTGCTCTGGT TGAAGCCAAG CAGGCAAGAT CAGACATCGA AAAACTCAA 5700
255 256 GAAGCAATTA GGGACACAAA CAAAGCAGTG CAGTCAGTTC AGAGCTCCAT AGGAAATTAA 5760
257 258

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SEQUENCE VERIFICATION REPORT
PATENT APPLICATION US/09/083,793

DATE: 05/29/98
TIME: 14:35:57

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Line	Error	Original Text
31	Wrong application Serial Number	(A) APPLICATION NUMBER: 09/